

Appl No.: 10/523,867

Atty. Dkt.: UCF-456US

REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested. Applicant has amended claims 1, 8, 26 and 33 and has canceled claim 9. Applicant gratefully appreciates Examiner's statement that claims 10-25 are allowed.

Claims 1-7 and 26-33 were rejected under 35 U.S.C. 102(b) as being anticipated by Zeng et al., U.S. Patent No. 5,170,439. Claims 1 and 26 have been amended to add the limitations of "storing at least 1 cone beam (CB) projection in memory at a time" and "using one family of lines for the step of restructuring" as previously claimed in dependent claim 9. Examiner noted that claims 8 and 9 would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims. Claim 8 has been amended to correctly depend from the new data storage step claimed in amended claim 1 and claim 9 has been canceled.

Furthermore, Applicant respectfully disagrees with Examiner allegation that Zeng discloses a shift invariant filtered backprojection algorithm. Although Zeng recites spatially variant filtering, it does not disclose the convolution-based FBP structure, spatially IN-variant filtering, as claimed in claim 1. The difference is that spatially invariant filtering is much more efficient. All Zeng really discloses is a complicated procedure of Fourier transforms, manipulations in the frequency domain, etc.

Claims 1-6 and 26-33 were also rejected under 35 U.S.C. 102(b) as being anticipated by Tam, U.S. Patent No. 6,292,525. Applicant respectfully disagrees with Examiner allegation that Tam discloses all of the features of the present invention including convolution based filtered backprojection on a circle and line CT system or

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method using a gantry or C-arm. Tam does not disclose a convolution-based FBP type system or method.

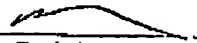
Tam starts with equation (1), then says that for views in the interior of the spiral, equation (1) is known to simplify to equation (2), see col. 9, lines 17-23. The substance of Tam's disclosure is to perform a similar simplification for views near the two ends of the spiral as described in col. 9, lines 38-40. However, Tam fails to remove the term C of equation (2), which is "space-variant 2D detector pixel point spread function as described in col. 9, lines 27-30. Therefore, the only portion of Tam's algorithm includes the convolution-based FBP structure, but the algorithm as a whole does not have the convolution-based FBP structure.

For the reason provided and the reasons provided in regard to Zeng, Applicant believes that claims 1-7 and 26-33 are allowable and requests removal of the rejections.

Claim 33, incorrectly numbered as claim 32, has been amended to correct the typographical error.

In view of the foregoing considerations, it is respectfully urged that claims 1-7 and 10-33 be allowed. Such action is respectfully requested. If the Examiner believes that an interview would be helpful, the Examiner is requested to contact the attorney at the below listed number.

Respectfully Submitted;


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